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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,004

06/15/2006

Josef Beck

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EXAMINER

CHARLES, MARCUS

ART UNIT

PAPER NUMBER

3682

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,004	Applicant(s) BECK, JOSEF	
	Examiner Marcus Charles	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6-15-2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is the first action relating to serial application number 10/583,004 filed 6-15-2006.

Claims 1-20 are currently pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The examiner has accepted the drawing filed with this application as formal drawing.

Specification

3. The disclosure is objected to because of the following informalities: The following subtitles are missing from the specification:

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(1) CROSS-REFERENCE TO RELATED APPLICATIONS.

(2) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(3) BRIEF SUMMARY OF THE INVENTION.

(4) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(5) DETAILED DESCRIPTION OF THE INVENTION.

Appropriate correction is required.

In addition, the specification is replete with reference to claims numerals. It is not proper to make reference to claim numerals in the specification. See for example page 1, line 3; page 2, lines 19, 24 and 31; page 3, line 5.

Furthermore, the claims are replete with the legal term "said". It is not proper to include legal terms in the specification. See for example page 9, lines 11, 16, 18 & 30; page 2, line 28, 33; page 3, lines 7; page 4, lines 5, 14; page 5, lines 20, 32, etc.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 1, 10 & 15, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74

(Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "Piston engine", and the claim also recites "in particular an axial piston or radial piston engine" which is the narrower statement of the range/limitation. In addition claims 4, 6, 10, 11, 13, 16, 18, the phrase "in particular render the intended scope of the claim unclear, as specified above.

Claim 6, 13 & 18 refers to the phrase "in a manner". It is not clear as to what the phrase "in a manner means" because it is not clear as to what manner is the claim referring to.

In addition, claims 6, 7, 13-14, 16 & 19, the claims respectively, refer "step-shape manner", and "cylindrical manner" and it is not clear as to what actual shape is considered cylindrical manner and step shape manner.

In claims 8-9, the phrase "according to the invention" renders the intended scope of the claims unclear because it is not clear as to how the bearing construction is in accordance with the invention" and what required steps involved so that the construction will be considered in accordance with the invention.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1-2, 5-10 and 12-14 as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Hitomi (6,848,642). Hitomi discloses a piston shaft (16) rotatable mounted in two bearings (34) of which at least one bearing has an inner ring (34b) which is seated without radial clearance of motion on a supporting region on a bearing section of the shaft at the axial length of the supporting region corresponds to the central region of the bearing section and at the two outer regions, a radial clearance of motion is disposed between the outer regions and the inner ring (see fig. 6)

In claim 2, note the bearing section (see attached drawing) has a greater diameter in the central region than at the outer regions.

In claims 5 and 12, note the central region is cylindrical.

In claims 6 and 13, as understood, note the outer regions are stepped.

In claims 7 and 14, as understood, note the outer regions are narrow cylindrically.

In claim 8, as understood, note the housing section (1) and the cover section (65) and the bearing is secured in the cover section.

In claim 9, as understood, note the bearing is a plain roller bearing.

In claim 10, as understood, Hitomi discloses the claimed invention above.

8. Claims 15 and 17-20, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Schaeffler (3,969,039). Schaeffler discloses a roller bearing assembly comprising a roller bearing having an inner race (6) positioned on a supporting region of a shaft portion (3) bearing region, wherein the axial length of the

supporting region corresponds to the central region on the inner ring such and wherein, the inner ring has a smaller diameter in its central region than at the outer regions.

In claim 17, as understood, the central region has a hollow cylindrical construction.

In claim 18, note the outer regions are diverging towards the ends and away from the central region.

In claim 19, as understood, note outer regions are widened cylindrically.

In claim 20, as understood, note the bearing (7) is a needle bearing.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hitomi in view of Schaeffler (3,969,039). Hitomi does not disclose the inner ring has a smaller internal diameter than at the outer regions. Schaeffler discloses a bearing having an inner sleeve (6) on a shaft supporting region of a shaft portion, wherein the inner sleeve has a smaller diameter at a central inner region than at the outer region (12) so that the inner race/bearing can adjust itself slightly obliquely to the longitudinal axis of the shaft (col. 3, lines 21-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the inner diameter of the inner race of Hitomi so that the diameter is smaller at the central regions than at the outer regions in view of

Schaeffler to allow for the inner race/bearing to adjust itself slightly obliquely to the longitudinal axis of the shaft.

11. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitomi. Hitomi fails to disclose the length ratio of the central region to that of the length of the bearing. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the bearing such that the length of the central region amounts to about 1/2 to 1/4 of the length of the bearing, since it has been held that where the general conditions of a claim is disclosed in the prior art, discovering the optimum ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schaeffler. Schaeffler fails to disclose the length ratio of the central region to that of the length of the bearing. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the bearing such that the length of the central region amounts to about 1/2 to 1/4 of the length of the bearing, since it has been held that where the general conditions of a claim is disclosed in the prior art, discovering the optimum ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Citation

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the prior art cited in attached PTO Form 892.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marcus Charles
/Marcus Charles/
Primary Examiner, Art Unit 3682

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